Patent claims

1.   A portable microprocessor-assisted data medium
able to be operated both in contacted and
contactless fashion, where

-       in contacted mode, data transmission takes
place between the portable data medium and a
data input/data output unit operating in
contacted fashion,

-       in contactless mode, data transmission takes
place between the portable data medium and a
data input/data output unit operating in
contactless fashion,

-       the portable data medium has at least one
memory divided into various memory areas,

-       the portable data medium stores at least one
access condition for at least one memory
area, said access condition defining the
condition under which access to this memory
area is permitted,

wherein

the portable data medium stores at least one data
transmission-specific access condition for at
least one memory area, said access condition
defining, on the basis of the type of data
transmission between the portable data medium and

a data input/data output unit, the condition under which access to this memory area is permitted.

2.   The portable microprocessor-assisted data medium
5   as claimed in claim 1,
      wherein
      a data access condition transmission-specific for the contactless mode is provided for at least one memory area, said access condition prohibiting any
10   access (all access types, commands) to this memory area in the portable data medium's contactless mode.

3.   The portable microprocessor-assisted data medium
15   as claimed in claim 1 or 2,
      wherein
      a data transmission-specific access condition for the contactless mode is provided for at least one memory area, said access condition defining
20   different conditions under which access is permitted for each of at least two different access types in the portable data medium's contactless mode.

25 4. The portable microprocessor-assisted data medium
      as claimed in one of the preceding claims,
      wherein

various access types are allocated different data
transmission-specific access conditions for a
memory area for the contactless mode, said access
conditions defining the conditions under which
5   access is permitted for the respective access type
in the portable data medium's contactless mode.

5.   The portable microprocessor-assisted data medium
as claimed in one of the preceding claims,
10   wherein
a data transmission-specific access condition for
the contacted mode is provided for at least one
memory area, said access condition prohibiting any
access to this memory area in the portable data
15   medium's contacted mode.

6.   The portable microprocessor-assisted data medium
as claimed in one of the preceding claims,
wherein
20   a data transmission-specific access condition for
the contacted mode is provided for at least one
memory area, said access condition defining
different conditions under which access is
permitted for each of at least two different
25   access types in the portable data medium's
contacted mode.

7.   The portable microprocessor-assisted data medium
as claimed in one of the preceding claims,
wherein
various access types are allocated different data
5   transmission-specific access conditions for a
memory area for the contacted mode, said access
conditions defining the conditions under which
access is permitted for the respective access type
in the portable data medium's contacted mode.

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8.   The portable microprocessor-assisted data medium
as claimed in one of the preceding claims,
wherein,
for at least one memory area and for at least one
15   access type, one data transmission-specific access
condition is provided for the contacted mode and
one data transmission-specific access condition is
provided for the contactless mode.

20 9.   The portable microprocessor-assisted data medium
as claimed in one of the preceding claims,
wherein
it is designed such that the data transmission-
specific access condition can be input into a
25   freely programmable nonvolatile memory in the
portable data medium by authorized agencies using
an item of secret information.

10. The portable microprocessor-assisted data medium
    as claimed in one of the preceding claims,
    wherein

5   it is designed such that the data transmission-
    specific access condition can be reprogramed into
    the portable data medium by authorized agencies
    using an item of secret information.

10 11. The portable microprocessor-assisted data medium
    as claimed in one of the preceding claims 1 to 8,
    wherein
    the data transmission-specific access condition is
    stored in a nonmodifiable read only memory in the
15 portable data medium.

12. A method for carrying out communication between a
    portable microprocessor-assisted data medium and a
    data input/data output unit operating in contacted
20 fashion or a data input/data output unit operating
    in contactless fashion, where
    -   the portable data medium has at least one
        memory divided into various memory areas,
    -   the portable data medium stores at least one
25   data transmission-specific access condition
        for at least one memory area, said access
        condition defining, on the basis of the type

of data transmission between the portable
data medium and a data input/data output
unit, the condition under which access to
this memory area is permitted,

5   wherein,

before this memory area is accessed (an access
command transmitted by the data input/data output
unit is executed), the portable data medium itself
uses a checking program stored in the portable

10   data medium to read the data transmission-specific
access condition associated with this memory area
and to check whether, in consideration of the data
transmission-specific access condition, the
desired access command is permitted in the case of

15   the particular current type of data transmission,
and the access command is executed only if the
result of the check is that access is permitted.